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DIRECTIONS FOR USING BROMINE.

By Dr. M. GOLDSMITH.

U. S. SANITARY COMMISSION, Louisville, Feb. 27, 1863.

The following formula is that used in the preparation of the accompanying preparation of Bromine:

Water, 3 10; Bromide of Potassium, 3 2½; dissolve the Bromide of Potassium, and add Bromine 3 10.

DIRECTIONS FOR USE.

First—For Fumigation: Place one ounce of the fluid in a glass tumbler, and place the vessel, one or more, in, according to dimensions of the apartment, at different points, in number sufficient to secure the constant presence of the odor of Bromine in the ward.

It must be borne in mind, that if the vapor of Bromine comes in contact with the vapor of water, Hydro-bromic Acid is formed, and that, therefore, when there is much of the vapor of water disengaged in the apartment, the quantity of the vapor of Bromine must be correspondingly increased.

Second—As a Topical application, the Bromine is used in vapor, or in substance.

For the topical application of the vapor, a piece of dry lint is to be placed over the diseased part. Over this is to be placed another piece of lint, moistened in the solution of Bromine; over this, another piece of lint spread with simple cerate, and the whole to be covered with oiled silk and bandage, so arranged, as to retain the vapor in contact with the diseased surface as long as possible. The Bromine is to be removed as frequently as it is exhausted by evaporation.

As a topical application in substance, in Hospital Gangrene, Diphtheria, Gangrene of the tongue, *et id omne genus*.

The parts are first to be dried by the application of Charpie. And if the sloughs are thick, they should be trimmed out with scissors and forceps, as much as possible; for the thinner the slough, the more effective is the remedy. The parts being again dried, the solution is applied by means of a mop, or with a pointed stick of wood, in quantity sufficient to saturate the slough. If the sloughs undermine the skin, or dip down into inter-muscular spaces, the Bromine must be inserted by a glass syringe, or with the pointed stick. If the application has been effectual, all odor from the diseased surface ceases, and the sloughs become somewhat hardened. The remedy should be re-applied every second hour, as long as any odor of putrefaction is present, or the sloughs appear to be diffuent. It is not always necessary, especially when the slough's covering are diffuent and thin, to use the solution in full strength. As the disease subsides, the strength of the solution may be diminished by the addition of water.

The points, in the application of the Bromine, to especially attend, are: 1st. That it should be applied in strength and frequency sufficient for the impregnation of the whole of the sloughs. And, 2nd, to this end the application should be made by the surgeon himself, and never entrusted to a nurse.

After the topical application of the solution, the part, when so situated as to make it practicable, should be subjected to the influence of the vapor—see page 1.

Surgeons will do well to bear in mind, that Bromine is a new remedy for the purposes above indicated. The accompanying directions are those followed in the hospitals at this place. It may be found advisable to modify them, as experience accumulates with reference to its use. It is, therefore, earnestly recommended that the subject be studied diligently; that the effects of the remedy be carefully watched; and the application varied, as new facts are developed in the course of its application.

[REMARKS.—We have long been in the practice of using the vapor of Iodine in indolent ulcers, and Tr. Iodine in sloughing wounds, in the manner here recommended for Bromine. Dr. Mitchell, in his work on *materia medica*, recommended the vapor of Iodine as a disinfectant, and stated that its presence prevented the communication of contagious diseases.

Iodine, Bromine and Chlorine have similar chemical relations to animal substances and destroy all poisons of the putrefactive class, and some whose classification is doubtful as that of serpents. The advantage of Iodine and Bromine is that they are less active than Chlorine, and can be more thoroughly applied to wounds. Experience must determine which is to be preferred. D. B.]

MY DISSECTION WOUND AND WHAT CAME OF IT.

Dissection wounds and death are so commonly associated, that we would as reasonably expect an autographic obituary notice, as a similar sketch of a dissection wound. Notwithstanding this uniform fatality, I have had the pleasure of a very close interview with his grim majesty, and am still left to tell

of it. If every one keeps in as "good spirits" as I did, the terrors of death must be very much exaggerated. In fact, I felt that while Buck & Rayner's S. O. P. lasted I should have no occasion to conjure them from the vasty deep, and were it not non-professional would be tempted not to give my treatment, lest the accident become *epidemic*.

Mr. Van ——— of this city, became entangled in the gearing of his mill, while in motion, was injured, and kindly referred to me for surgical treatment by Prof. Miller.

I saw him first on the third of February, 1863. Upon examination, found his right arm fractured at the union of the lower and middle thirds, the radius broken at the union of its middle and lower thirds, and the ulna at the junction of its upper and middle, the latter a compound fracture, the parts around being considerably bruised. Besides he had some trifling bruises on the lower right side of his chest. The patient was unusually stout and robust, of the sanguino-lymphatic temperament, always enjoying the best of health.

Assisted by Drs. Shumway & Lynn, I dressed the fractures with splints lightly applied, leaving an open space about the compound fracture, and gave the patient an anodyne.

Saw him the next day, found he had slept tolerably well during the night, and having taken the anodyne pretty freely was quite free of disturbance. We moved him to his uncle's, on a bed in one of our street cars, the distance being about a mile, which was made easily and with little or no discomfort.

I then removed the dressings, and as the lower fragment in the compound fracture was very sharp, I clipped off its point with my bone forceps, in order to allow it to rest more firmly against the upper fragment and act as an extending splint, but it came nearer performing the same valuable service for me, for while doing so, under the guidance of the left forefinger, the forceps slipped off and cut it slightly, not more than two lines, but seemed to bruise it very much. It hurt me much, and I immediately put it in warm water and squeezed it, causing it to bleed freely.

I redressed the limb lightly as before, and thought but little of my autoplasty until near night, when it began to feel very tender, which gradually increased to a deep painful throb confined to the end of the finger. The pain continued through the night, so that I rested but little, keeping my finger in a basin of ice water most of the time, though I was slow to believe that it was more than the bruise of the forceps that was causing the trouble.

An examination in the morning dissipated any doubts I might have had of its character, and I was placed in front of that danger which always seemed a myth, from its far nearness. Eight years in the presence of a danger does much to dissipate the dread of it, and induces the carelessness likely to produce it. My finger was swollen, tense, red, throbbing, the pain extending to the elbow and shoulder, with two red lines of lymphatics passing from the back of the hand to the elbow, and a blush on the back of the hand at the point of beginning of the inflamed lymphatics. I felt a sense of languor similar to that preceding an attack of ague, with the attendant aching of my limbs and indisposition to exertion.

At 10 o'clock, I cauterized the finger thoroughly, and Dr. Lynn split entirely to the bone the length of the last phalanx through the wound. It bled probably a drachm or two, after which it felt somewhat relieved, and wrapping it in a linen roller, I attended to my business during the forenoon. Getting home at one o'clock, and my hand in a perfect rampage of pain, as I entered the house was taken with a violent chill, which shook me *entirely*, until I thought I should dis-joint without the benefit of the clergy. This did not continue more than fifteen minutes, and was followed in about an hour by fever my pulse rising to about 120, which with alternate cold flashes continued the afternoon.

When I was taken with the chill I took a very free dose of brandy, and repeated the dose in half an hour. If any one is curious to know the amount I must refer them to my kind and frightened landlady, who dealt it with no spar-

ing hand. As I came from my office at 3 o'clock, I ordered a quart bottle of Buck & Rayner's best, and began on it immediately, and continued it at *uncertain* short intervals during the afternoon. Shortly after 6 o'clock I broke into a profuse perspiration, which lasted but a few minutes. After this, my fever seemed to rise higher. R. Cont. Brandy, Pro re nata, and more too. At bed time, Blue Mass, grs. X. At midnight, I began to perspire freely, which continued through the night. Next morning found me free of fever, my finger comparatively comfortable; did not examine the wound.

R. Cont. Brandy, slightly increasing the dose, from the encouraging effects thus far. Took a bottle of Citrate of Magnesia which operated freely.

No increase of fever during the day.

Night found my medicine exhausted as well as the fever, both going down together. In the evening my finger pained me some, which by 2 o'clock A. M. became so unbearable that I opened it to find the wound suppurating slightly, and erysipelas extending the length of the finger, swelled to the back of the hand.

Cauterized it with solid Nitrate of Silver, and applied bread and milk poultice to the wound, and it becoming easy, I slept well, except when I roused myself to sustain my flagging powers with a toast to the inventor of agreeable medicines.

Morning found me with another empty bottle, this time only Oj., and my finger seemingly free from further anxiety, the erysipelas ceasing to spread and pain almost having disappeared. This day, Saturday, I went to my office, though feeling very weak. After this there is nothing in the history of the case of any interest, if there is any before.

Erysipelas, followed by gangrene, set up in my patient's arm and he died the fifth day.

Aside from the *personal* interest I have had in the case, there seems to me an interesting inquiry arises, which I have no hope of settling, although that does not serve to keep it

down. Why should I escape so many similar exposures to be overtaken this time? Leaving out the theological view, which I firmly believe, "Whatsoever comes to pass," &c., there is much mystery about the *matter* of infection. Many times, so far as extreme appearances could go for any thing, I must have been exposed to all the reputed causes of this uniformly fatal accident.

Often I have cut my fingers in dissecting, an accident occurring every day almost, and on almost all kinds of subjects, and never had the slightest symptom of any thing of the kind before. Generally, the caustic was applied, but if the ideas of some of our latest authorities go for much this is of uncertain avail, for they maintain that once the infectious material within reach of the absorbents no power can rescue the contamination. In vaccination, it is maintained, that when once applied, though scarified, cupped and washed with chlorinated water, the disease was not interfered with in the slightest. Glanders has been introduced into the system in the same way, though followed by excision of the part and the actual cauterization. Very often this was not done, and every thing was left to its natural course with perfect impunity. This was not so alone with the cadaver, but also on living subjects.

While on the hospital boat from Pittsburg Landing, I recollect *knocking* the skin off my fingers in opening some boxes and afterwards using them probing erysipelatous wounds and handling cases of hospital gangrene, without having the slightest inconvenience from it.

Wherein does the predisposition exist? Is it in the poisoner, or poisoned. It seems to me in the latter, from the facts I have just stated. The condition of the system at the time it is exposed to the infection determines its reception or rejection; not its absolute acceptance or rejection, but its deleterious effect. In certain conditions of the blood and organs, any deleterious agents received within due limits may be eliminated, while in others, either from the blood proving a suitable and comfortable nidus, or from the organs whose business it is to throw :

off being imperfect in practice, it is retained, and all the consequences entailed. And here exists one of the great predispositions to disease, the condition of the blood and eliminating organs.

One case of confinement does well, or all cases do well in one season, and in another with no outward difference in the cases many are affected with fever and none do so well as formerly. In one season the system, with its usual energy, purifies itself and speedily regains its accustomed vigor, and in another, from the blood being contaminated or contaminatable, the resolvent actions are impeded, putrid or stagnant blood received into the circulation, is sufficient to light up the fires of fever. In one season or case a given injury readily rights itself with no serious symptoms, while in another gangrene or erysipelas complicates or destroys.

In scarcely one out of ten cases of Gonorrhœa treated, is the patient made acquainted with the danger of contact of the infectious matter with the conjunctiva, and he handles organs and eyes with indiscriminate ignorant freedom and yet how rare is purulent ophthalmia?

I think that those blood diseases will be found to prevail during epidemics of erysipelas and childbed fever, and to this fact, and not contagion, are these epidemics to be attributed, that it is a coincidence and not a cause.

In one season the diseases of children, as scarlet fever, measles, &c., are comparatively light, scarcely sufficient to keep the patient indoors; while during the present winter very many died, and that too under the most skillful treatment. I have noticed the present year, as a collateral fact, that the cases I have vaccinated have been unusually successful in taking, their arms excessively sore—in many cases, though I always used the purest matter, an eruption, pustular in character, would break out on the arm—the surface around it remain livid and the arm not heal for four or six weeks. These facts evidence to my mind that there are times when, from the altered relations of the elements, some additional elements, or

the changed eliminative power of the excretory organs, the blood receives injurious impressions with more facility.

A person may be exposed for years to the same exciting causes of disease with entire immunity, until the two poles meet with the necessary conditions for an explosion. I know I am stepping aside from the usual idea in relation to this subject, it always being accounted as depending on the character of the infecting matter rather than condition of the individual receiving it. Certain diseases, as Puerperal and Erysipelatous, being those regarded as most dangerous, the fact of their prevalence is, I believe, evidence of the epidemic influence causing-depraved condition of the blood. Or were they not prevailing it would weigh nothing against the circumstances of an individual case being such as to cause the necessary depravation of the blood, as from exposure, bad food, or great mental and bodily fatigue.

The treatment suggested itself to me as that most successful in other forms of animal poisoning, and as so little was to be expected of those usually adopted there seemed but little risk in trying it, with the additional advantage of being a pleasant medicine and a great comfort to the suffering. I gave it a very free trial, having taken three pints of the best brandy in thirty-six hours, which for one not a politician may be considered fair drinking. The test of its efficacy in this disease is said to be its want of effect on the mind. The only circumstance from which I could judge was getting well, though I noticed occasionally a disposition to converse freely, but I took the precaution not to apply the test of locomotion. I feel much confidence from my experience in the remedy, and should use it again with great hopes under similar circumstances, the very best test of its power being to me that I am able to subscribe myself

R**.

P. S.—Since writing the above, Dr. Chas Fishback, of Indianapolis, has lost his life by this accident. He was making a *post mortem* when he pricked his finger slightly with a needle, the disease set in, destroying his life. I have seen nothing but a newspaper notice of the case and, therefore, know nothing of its treatment or duration.

SELECTED.

CLINICAL LECTURE ON THE TREATMENT OF
ACUTE RHEUMATISM,

DELIVERED AT ST. MARY'S HOSPITAL, LONDON.

By THOS. K. CHAMBERS, M.D.

Gentlemen—Rheumatic Fever is a pleasant disease—I mean for the doctor to treat, though not for the patient to bear. It is pleasant for him to treat it, because he then feels himself strong and useful. In the first place, he can by the judicious exercise of his art, insure the sufferers against several perils to which the nature of their complaint normally subjects them. Again, he can save them much pain. Thirdly, he can shorten the normal duration both of the illness and of the convalescence. Truly, in most diseases he can effect one or the other of these objects, but in none, I think, so many of them, so surely or so simply as in rheumatic fever.

Rheumatic fever is also a pleasant disease to lecture about. It presents a simple uniform type, so that the short descriptions you have had in the systematic course on the Practice of Medicine are found really applicable at the bedside, without the necessity of guarding them with all sorts of exceptions and variations, which clinical teachers are so often obliged to resort to in other cases. And a very simple uniform treatment may be recommended, which hardly ever (if ever) requires modification. So that if your authority with your patient is sufficient, and you are certain of your diagnosis, you never need to call in the assistance of a physician.

You see taken in the wards almost weekly specimens of the mode of treatment I adopt. My present business is to tell you the reasons for it.

1. The patients are bedded in a peculiar fashion. All linen is strictly forbidden to touch the skin. A slight calico shirt or shift may be allowed; but if they possess under clothing only of the prohibited sort, they are better naked. Sheets are removed, and the body carefully wrapped in blankets, which are so arranged as to shut off all accidental draughts

from the head. The newest and fluffiest blankets that can be got are used. The bedclothes being put so are kept so, and students are warned that, when they listen to the sound of the heart, they must not throw open the blankets, but insert their stethoscope (first warmed) between the folds.

2. These joints or limbs which are swollen, red, or painful, are wrapped up in flannels soaked with a hot fomentation consisting of decoction of poppy heads, with half an ounce of carbonate of soda to each pint.

3. The following drugs are prescribed with a curative intention :

(a) If the skin is red, swollen, and painful, about the joints—if the cellular tissue around the muscles is infiltrated and sensitive, so that motion is impossible or exquisitely painful—more especially if these phenomena are metastatic, leaving one part free and attacking another,—then they get the alkaline treatment pure and simple; they have a scruple of bicarbonate of potash in camphor water every other hour night and day when awake.

(b) If the above named phenomena are insignificant, and the pain is felt more in the bones—if it is intensified rather by pressure than by motion—if it is fixed in one spot and not metastatic,—then I add two grains of iodide of potassium to each dose; and directly the symptoms have taken a turn towards alleviation, I leave off the alkali altogether, and gave only the iodide.

4. Opium, as a palliative, is given in exact proportion to the degree of subjective sensation of pain. If one grain be not enough to entice sleep, a grain and a half is administered; if that do not avail, two grains. Directly the pain is better, the quantity of the drug is diminished. Nothing effects the desired object so much as pure opium.

5. If the pain remains fixed in one point, instead of leaving it like in other places, leeches are applied there, and the part is kept poulticed. When we can get them, young laurel leaves, bruised, are mixed with the poultice.

6. The latter statement is applied also to the cardiac region, if the heart has become inflamed either inside or out. The pain is taken as an indication of the extent to which the leeching is to be pushed, so soon as it is proved by auscultation that such pain arises from inflammation of the heart, and not from rheumatism of the pectoral muscles. The constant application of the poultice is made imperative.

7. The diet is varied in some degree according to the ante-

cedent circumstances of the patients. If they have been robust healthy persons before the attack they will bear a good deal of starvation, and they are put on our "simple diet"—to wit, bread and butter, gruel, and tea, in quantities practically at discretion. If previously they have been ill nourished, by reason of either ill health or poverty, a pint of broth or beef-tea is added.

I will now proceed to comment on the several items of treatment.

1. It is impossible to exaggerate the importance of extreme repose and an even high temperature to the skin in rheumatic fever. It is worth all the other means of relief put together. Since I have instructed my nurses to adopt it in every instance during the last eight or nine years, I have had pericarditis come on in only one patient previously sound, and that was a girl who was taking mercury and opium, and I suspect had exposed her chest a good deal to the air.

The *rationale* of this is very simple. Rheumatic inflammation is an injury to nutrition which is entirely compensated for the restored function. It passes away and leaves no after-sigh, no wound, no scar. This is what happens if the part affected is kept perfectly still. But should duties be required of it, which it is unequal to perform in its imperfect condition—should necessity or ignorance lead the patient to keep moving a swollen joint, for example—then common inflammation is superadded. Then the pain and swelling become fixed, and no metastasis can take place. You see this frequently in the poor working people, who, through ignorance of consequences, strive to go on with their employment to the latest minute. Laborers come into the hospital with the disorder fixed in their knees, carpenters in their elbows, laundresses in their wrists; so that you may make a shrewd guess at their trade from the part where the disorganizing inflammation is situated. Pain may be called by excellence *the* proof of beneficent design in God's laws as shown in disease as a warning to abstain from that which excites it. The pain of rheumatism is a call to voluntary absolute rest. Now in the joints this is easily obtained, and under any treatment you never see a joint become affected with disorganizing inflammation after a patient has once taken to his bed. But there is one organ whose business admits of no repose; the heart *must* keep beating, at whatever cost; and the heart accordingly is well known to be fatally apt to be struck with common fibrinous inflammation at all stages of the disease. Taking a lesson from what I

have noticed in the joints, I try and assist the heart to gain, not, of course, the Utopia of absolute rest, but the nearest approach that is possible.

Perhaps you may think that object would be attained by simply confinement in bed and the horizontal posture. But it is not so. Next to jumping and running there is nothing gives the heart more work to do as change of temperature. Let the physiologist observe the healthy organ, and the physician examine it in a state of disease, and they will find that the addition or subtraction of heat to the surface of the body is accompanied by a longer and stronger stroke as felt by the finger, by a longer and stronger sound as heard by the ear in the cardiac region. What is technically called "the interval" is shortened; and thus is encroached upon the only wink of sleep the industrious muscle ever indulges in. What does the accoucheur do who wishes to apply the strongest vivifier to the dormant circulation of a still-born baby? He dashes cold water and cold air on the skin; he rubs the chest dry, and applies hot cloths; again he dashes it with cold, making as many changes of temperature as he can. What the accoucheur is so anxious to accomplish, we are most anxious to avoid; and I feel sure that it is the consequence of guarding patients with rheumatic fever from the influence which variations have over the dependencies of the pneumogastric nerve that the treatment now advised is so successful. I never have pericarditis come on when it is once fairly begun.

I scarcely need to say that the most important part as respects the attainment of the accoucheur's object and our opposite object is the chest and neck. He applies his stimulus especially there, and there we must as carefully watch against it. As a student I used to see many and many a case of pericarditis brought on by the careless way in which the chest was exposed in the daily stethoscopic examination. It is necessary, of course, to listen to the heart thus frequently, in order to convince yourselves of the absence of morbid sounds under the plan I am advising; but by warming the stethoscope in your pocket or under your axilla, and making the blanket into a tube by which to insert it, you put the patient to a minimum degree of danger.

You saw a fortnight ago an instance of the danger of the exposure I have been deprecating. Margaret K——, aged twenty-three, was admitted March 28th, for rheumatic fever in the arms and legs; from this she recovered perfectly without any affection of the heart, and was transferred to the Convalescent Ward.

On April 17th she had a relapse, principally affecting the legs, and on the 19th I found her in bed again. By an oversight she had not been blanketed, and when I felt the cold sheets damp with the patient's perspiration, I was not surprised that she complained of constriction across the chest. You heard me rebuke the nurse in no measured terms, and prognosticate evil. With justice; for before two days were over, there was a melancholy systolic murmur distinctly audible. I trust this case has been a warning to you.

2. By comparing occasional cases one limb wrapped in fomentations of simple hot water with another where decoction of poppy heads were used, I come to the conclusion that either the viscid vegetable matter or the small quantity of opium in the poppy heads contributed towards alleviating the pain a little. And a similar experiment has led me to the same opinion as respects an alkaline carbonate.

3. With unimportant exceptions I have treated every patient on the alkaline plan for the last seven years, being convinced of its power to shorten and alleviate the disease by the statistical deductions of Dr. Garrod. In a great majority of the cases very rapid relief begins with the commencement of the treatment, and continues permanent. But in a certain number no effect appears to be produced, sometimes even after the urine had been made alkaline. In a few of these there is apparently committed a pardonable error of diagnosis, and the patient is gouty. In a few also we are deceived by gonorrhoeal rheumatism—a disease allied to pyæmia, and requiring quite different management. Still there are a certain number of instances where true rheumatic inflammation is very obstinate, and does not yield to the alkaline method. And in these you will find the periosteum and perichondrium affected. When, then, after five or six days the patient is better, or but little better, I add as I told you, iodide of potassium to the potash, and in a few days more continue it alone during the convalescence. And, of course, if I am enabled to make this condition of periosteum out of the first visit, I begin such treatment straightway.

I mentioned just now that I had in a few instances, for exceptional reasons, not given the alkaline treatment for rheumatic fever. Amongst these are included a middle-aged laborer and his wife, both attacked together, and just recovered, in which cases you saw no drugs given during the acute stage. The object of this omission was partly to disabuse my own mind of a suspicion that the alkalies might cause, or augment

the anæmia and weakness so general in the convalescence of rheumatic fever; or, perhaps, might give rise to relapses by interrupting the course of the disease. You saw that the loss of flesh and strength was in these two cases as great as usual, if not greater than in the majority of the examples exhibited to you in the wards, satisfying us that it is the disease, not the remedy, which is to blame for it. You saw, also, that one of the patients (the man) had a relapse, showing that to nature, and not to art, is to be attributed this unfortunate occurrence so frequent in rheumatic cases.

Partly, also, I omitted drugs to remind you that you do not carry in your medicine chests absolute powers—that rheumatic fever is a state in which the forces of life move in a circle, in a road which leads of itself back towards health—not a chronic disorganizing process, whose path may be described as a straight line, approaching nearer and nearer to death the farther it goes. It ends of its own accord, or at all events without the aid of drugs, often in a few days, often (as you saw here) in a time quite as short as could have been expected had medicine been administered. This consideration is needful to enable you to estimate properly the value of numerical arguments and to understand that a very large collection of cases, much larger than your experience probably will ever supply to you, is required to prove the ability of a drug to shorten rheumatic fever. If you forget this, you risk being misled by a fallacy, at an instance of which, applied to this very disease, I was amused a few years ago. I had an interview with an irregular practitioner, (very irregular indeed,) who told me that he gave no medicines, but followed “the method of St. James;” he “anointed with oil those that were sick, and the Lord raised them up.” As evidence of the success of his plan, he gave me the history of two attacks he had experienced of rheumatic fever. In the first he was treated *secundum artem*, and was laid up for more than three weeks; in the second, he obeyed the perversion of Scripture above quoted, and was out of bed in five days. Of course he was perfectly impervious to argument.

Do not misunderstand my words, as if I intended to be sceptical of the proof adduced by Dr. Garrod of the success of the alkaline treatment in shortening the average duration of our patient's pains. I think he fairly proves his point by the numerical method. But besides that, the use of such drugs is quite in harmony with the principles of restorative medicine. The deficiency of the alkali in the body is shown

in all quarters by the appearance of free acids. In indubitable cases left without treatment, the sweat is acid; the saliva is acid; the urine, instead of being normally acid, is intensely acid; the breath even smells acid. The blood, indeed, remains alkaline, fortunately for the life of the patient; but that is only done at the expense of becoming exceedingly watery, and inducing the anæmia which is so characteristic of the convalescence of rheumatic fever. If the blood is aqueous, and contains less solids than normal at the same time that the salts bear their usual proportion to the rest of the solids, it is obvious that there must be a great deficiency of these salts in the body. Though the blood therefore be not acid, it is easy to understand that it carries less alkali than it ought to do.

A real deficiency, then, is attempted to be restored by the alkaline treatment. And when we think what a great mass of living matter it is over the whole of which this blatant deficiency exists, then is explained the necessity found for large and repeated doses, which all good observers insist upon. To give a few grains three times a day is merely playing at healing, and cannot be reckoned as treatment at all. I do not think anything less than half an ounce in the twenty-four hours of the bicarbonate of potash is of use. If this runs off straight by the kidneys, making the urine alkaline too rapidly, it is of little avail; but if it mixes with the mass of the corporeal fluids, and is some time before it affects the reaction of the renal secretion, the advantage is sensibly appreciated by both the patient and his attendants.

The employment of iodide of potassium is purely empirical. By none can the fact be explained that this remarkable substance restores their normal functions to several tissues—most notably to those sparingly supplied with bloodvessels, such as cartilaginous and white, hard, fibrous parts, the periosteum, the sheaths of tendons and of nerves, the hair, the nails, and the outer layers of skin. On these grounds it is employed when rheumatism and even when gout attacks the tendinous and internal tegumentary parts of the joints and limbs. And I think one cannot doubt the assurances of the sufferers that they feel better for it, however inexplicable the fact may be.

4. Opium is administered purely as anæsthetic. There is no reason to think it either shortens or lengthens the duration of the disease. Curiously enough, it does not usually produce constipation so long as the painful condition which it is given to alleviate remains. Should, however, that result follow, the inconvenience is easily obviated by adding two or three grains of good extract of colocynth to the opium pill.

5. The treatment by leeches and poultices of the common inflammation which has supervened on the rheumatic in joints over-exerted during their weak state, has nothing special about it. It will usually prevent disorganization, because in point of fact the inflammation is very slight and diffused.

I have told you inflammation of the heart does not come on in patients who have once been placed and kept under the treatment detailed to you; but in a good many the exposure they have been subject to previously, and sometimes, perhaps, the necessary time spent in the waiting-room before admission, gives you, unfortunately, the opportunity of seeing this complication treated. I feel satisfied that it need make no difference in the applicability of the alkaline method; indeed, it rather determines me to insist on its being fully carried out; it determines me also to be more than usually careful about the maintenance of temperature by blankets, and to direct this attention to the chest in special by the retention of continuous poultices on the cardiac region. From six to twelve leeches are applied immediately. These usually relieve the pain somewhat; but if it returns again next day, they are freely repeated again and again. The pain is the best indication of the acuteness of inflammation in serous membranes, and as long as acute inflammation lasts, leeches and poultices are the best remedies for it. To mercury I have never been able to trace any advantage at this stage; indeed, I am not sure that it does not dispose to pericarditis by increasing the proportion of fibrin to the other constituents of the blood. Perhaps after effusion has taken place it may be useful; but I am not quite satisfied that it is desirable in all cases even then. Opium may be given in full doses, and far from being contraindicated in cardiac inflammation, is all the more urgently demanded; for it certainly does control and lower the hurry of circulation, which is so dangerous. Under its use the pulse is diminished in frequency, sometimes even below the normal standard; and this must surely be an important object in a state induced by the continuous motion of the organ.

The treatment of pericarditis admits of no delay. Lost minutes are more hurtful here than in any disease I know of. Send for leeches, and have them applied immediately, our suspicions are aroused by an abnormal murmur; and if they are not at hand, cup the cardiac region. It is better even to anticipate evil than to be too late. On this principle you saw me a fortnight ago leech and poultice the heart of the young woman before mentioned (case of Margaret K——), where

you could detect no friction in the pericardium, and you wondered at my "sharp practice;" but the fact is, it was a case of relapse during convalescence, and as the patient was in the convalescent ward, the nurse negligently omitted to put her in blankets; the cold, damp linen was beginning to do its work, and the lengthening heavy systole of the left ventricle, accompanied by a sense of constriction, and pain on pressure, warned me to try and prevent the threatened inflammation. I was only partially successful; for the anticipated evil did come as predicted, and in two days' time an exo-cardial murmur was distinct enough, though I am convinced it was in a much milder form than would have happened without the leeches.

7. In rheumatic fever there is a painful necessity for restricting the supply of nutriment. If animal food be given, it appears to turn into lactic acid, or at all events to increase the quantity of animal acid in the body. Even when the pains are gone, and there is such an urgent necessity for replacing the lost flesh, animal food will sometimes bring on a relapse. Hence in rheumatic fever, alone, perhaps, of all diseases, I give the patient less food than their inclinations dispose them to take. Meat especially seems to disagree, and you must very cautiously get back to "ordinary diet" after rheumatic fever, or you run the risk of losing more by a second attack of the disease than is gained by haste. Vegetable food does not throw them into the same danger, and thus by dint of rice pudding, porridge, gruel, bread, mashed potatoes, and so on, you can generally succeed in stopping the mouths which are often so loudly complaining of starvation. If you cannot succeed in staying the appetite by this persuasion, I fear it is your duty to be cruel, for observation will soon convince you of the dangerous effects of animal food.—*London Lancet.*

INSANITY AND INTEMPERANCE.

By ANDREW McFARLAND, M. D.

Among the problems of psychological science which remain to be solved, is, such a discrimination between the manifestations of mental disease and some of the effects of the hab-

itual use of diffusible stimulants as will render reasonably clear the administration of justice in criminal courts. It is not merely with the broad resemblances between insanity and drunkenness that we have to deal, in some of the cases which occur; not the question how far a fit of intoxication renders the individual irresponsible for what he does; but we sometimes have the two states conjoined in the same individual, each with its liabilities and immunities, making a skein of commingled guilt and irresponsibility, which science must disentangle. We must sometimes throw so much light on the tissue of testimony held up before us, that amidst all its intertwinings, what is the indelible coloring of disease, and what the transient stain of a vicious habit, shall at once appear. The task is a difficult one, requiring a nice analysis of their differences, and such a bold separation of them that justice may plainly see where to strike.

In two instances, within the last year, the subject of insanity in connection with the excessive use of stimulants, has presented itself in the courts of Illinois, where the two conditions could be viewed in their relation to each other.

The first case, *Keenan vs. Van Horn*, had little of interest, except for the decision rendered, which goes somewhat to open an enlightened procedure in such cases. In this case, suit was brought by the complainant, Margaret Keenan, to recover possession of certain property conveyed by her husband during his life to Van Horn, while incapable of so doing, by reason of mental disease.

The deceased was long in the habitual and excessive use of ardent spirits, resulting finally, as was claimed, in permanent mental disease. The testimony, which was very voluminous, proved that for fifteen or twenty years, he had been a common drunkard, that his propensity for such indulgence grew more inveterate, terminating at last in his death from dropsy and general decline. Toward the last of his life he had abandoned his family and taken up his residence with Van Horn, to whom he conveyed his homestead and other effects without adequate consideration.

The allegation of his incompetency rested chiefly on certain distinct and strongly marked peculiarities, which always attended him when under the influence of liquor. At such time he fancied himself a military commander, styling himself "Capt. Rock," and would spend many successive days and nights in giving the word of command to imaginary companies of soldiers, whom he extemporized out of sticks of

wood, stumps of trees, &c., and that his fits always took that form and no other. At such times it also appeared that he had no adequate idea of the value of money, but spent it lavishly in buying articles for which he had no use, or which he gave away to persons in whom he had no interest. Testimony as to his condition during the intervals between his fits of drinking was somewhat conflicting, though the weight of it seemed to be that, with the exception of his faculties being somewhat blunted, there was nothing very different in him from other men.

In this case it was held that the unvarying recurrence of the mind of the deceased to certain fixed and unchanging delusions, was evidence, notwithstanding the occasion of such delusions may have been induced by indulgence in liquor, that there was radical mental impairment, that there was a difference in his peculiarities from the ordinary phenomena of the drunken fit, the aberrations of the latter being more general or diffuse, and not commonly attended with such special delusions as was shown always to exist in this case. The liquor was claimed to act in this instance upon certain always present, though latent, diseased mental traits—something like the effect of a varnish upon the grain of a wood—bringing into view what was before invisible, though none the less present.

Judgment was rendered for the plaintiff in this case, from which an appeal was made to the Supreme Court, which, however, sustained the decision.

It must not be understood that those general but always appearing traits which some persons exhibit when inebriated, are included in this view. Some men, for instance, are always dignified, some quarrelsome, and some amorous when in their cups, and some indeed, like Mr. Snellicci, pass through all those stages in the course of a single bout. A difference will be recognized between this exhibition of some general trait, and that taking up of a special idea, which was held, in this instance, to be indicative of fundamental impairment of the intellect.

This case is cited rather by way of introduction to another of much greater importance, in which this distinction is more clear, and becomes more necessary.

William Hopp was tried for the murder of his wife before the Circuit Court of Cook county, in December last, Judge Manierre presiding. The trial was protracted, excited deep interest, and has points well worthy professional attention.

Hopp is an Englishman, who came to this country with a

younger brother, and settled near the head of Lake Champlain, in Vermont, perhaps thirty years since. Testimony of importance, in regard to the insanity of his mother and his aunt, was ruled out of the proceedings, as technically inadmissible. After residing some time in Vermont, both brothers moved to Illinois, and settled some twenty miles from Chicago. It was proved by the prosecution, by way of derogation of the character of Hopp, that while living in Vermont, he was engaged in smuggling goods across the Canada border. But all testimony in regard to him, since residing in Illinois, showed him strictly upright in every business transaction, and somewhat punctilious in matters of honor and veracity. By great industry and thrift, he acquired a handsome property, and was living, at the time of the homicide, in a style much above the average of his neighbors. It may be mentioned that Hopp had always used ardent spirits freely, though not regarded as an intemperate man. Some years after coming into the State, the younger brother became incontestably insane, and still remains so, though residing with and cared for by his brother.

Twelve years ago William Hopp, while repairing a bridge, was exposed for several days in succession to a thorough wetting, and an obstinate dumb ague was the consequence. At this distance of time it is impossible to get at the exact state of his mind during this illness. But it appears that, while still suffering under its effects, he had a trifling difficulty with one of his neighbors, whose horse had died while in his (Hopp's) hands, though in no way made diseased by any labor or ill usage. After some dispute an arbitration followed, in which it was decided that Hopp should pay half the value of the animal. He appeared unusually disturbed by this transaction; his mind seemed to dwell upon it to the exclusion of almost everything else. He fancied it not less an act of injustice than an imputation upon his personal honor. What increased his vexation was an idea that his wife was indifferent to his interests in the transaction; and this impression finally changed into a conviction that she was in complicity with the arbiters who had made the decision.

From this period commenced a course of personal abuse, occurring in paroxysms, in which he charged her with unchaste conduct, at first with these particular parties, and at length with a prostitution almost indiscriminate. It may be mentioned that no woman could exist in whom such accusations could be more unfounded. These periods of abuse were

strictly periodical, leaving him, during the interval, affectionate and considerate as other men. But they increased in frequency and length, sometimes continued with hardly any cessation for two or three successive days and nights. This abuse commenced at first in the form of remonstrances against her unchaste conduct. Then it took the form of most profane and obscene epithets, coupled at last with extreme personal violence. He never applied any epithet to her except such as denoted unchastity. In the presence of others, during all the early part of this period of ten years, he treated her with due consideration. Only his children were witnesses to it, by overhearing him after he and his wife had retired. But at last the presence of his children, and finally of strangers, made little difference. These paroxysms were attended by the consumption of large quantities of liquor, and the degree of his abuse of his wife was measured, in the estimation of his neighbors and children, solely by the depth of his potations. Sometimes, exhausted by this protracted persecution, she would leave him, threatening not to return. No sooner would she be out of his sight than he seemed a changed man. He would abstain wholly from drink, become penitent and full of self-reproaches, write beseeching letters imploring her return, and even take oaths before a magistrate to abstain forever from liquor, upon which he charged all his conduct. But as soon as she comes again in his sight, the same abuse is renewed, even before they had reached the house from the cars in which she returned. During these years, all the testimony showed that as a father and neighbor he was exemplary. He was a man reserved in the extreme in imparting his confidences, and never, except in occasional obscure hints, disclosed his impressions regarding his wife's unchastity. He clearly did so, but in rare instances, and only to those in whom he had most implicit confidence.

His wife seemed the only person who had any idea of the true cause of his singular conduct. That she had such idea, appears from her frequently advising him to take calomel and other medicine.

In the month of June, 1862, he returned in the evening from a neighboring village intoxicated, but not so much so as on many former occasions. He commenced his abuse in the usual terms, to which she made little reply, when, as she was seeking to evade him, he struck her, while passing, with a knife, which inflicted a wound in the abdomen, of which she died about twelve hours afterwards. On the assembling of

the neighbors, Hopp appeared perfectly calm and unconcerned. He calls them to witness his present sobriety, tells them the act was a deliberate one, and contemplated for the past ten years.

Just previous to his trial, the writer of this article visited him in the jail, the prisoner having no idea whatever of the person, or of the object of the visit. The prisoner is about fifty-eight years of age, rather above the common height, and of fair intelligence for one of his class. His honesty and sincerity are unquestionable, and his statements in regard to the tragedy and the ideas antecedent to it, bear the stamp of perfect ingenuousness. He went into a lengthened narrative of his troubles, commencing with the arbitration in reference to the horse. The proofs of his wife's infidelity, which he circumstantially narrates, are the merest "stuff of which dreams are made." As evidences of the trifles on which the insane base their delusions they possess a certain degree of interest.

On one occasion, for illustration, when a son was born to Hopp, certain acquaintances, and among them one of the arbiters in the horse case, assembled in honor of the event. A toast was drunk complimentary of Hopp, especially in relation to his ability to beget children. This he regarded as clear proof that the proposer of the toast thereby acknowledged the guilt of which Hopp had previously suspected him. A remark made afterward by the same individual, that "women were good creatures," was conceived to have the same import. As was before remarked, his conviction of his wife's infidelity so widened during the last of her life, as to include most persons who even approached his dwelling. An individual who had called to purchase some onions, in Hopp's absence, was regarded by him as the father of one of his children, and, on calling at the house some months afterwards, the child was brought out by Hopp and introduced, by way of test, as "the little onion boy." In narrating the circumstances of this introduction, Hopp concludes with the remark that if the individual thus accused had "spoke volumes of confession, it would not have been equal to the look of guilt which that introduction created."

No one at all acquainted with the manifestations of mental disease will fail to recognize a state of mind of which such ideas as the above form a texture, as insanity of the most unequivocal type. Yet, never was prisoner arraigned at the bar more completely shorn of every vestige of sympathy, or who stood so entirely alone in his extremity. Fully justify-

ing himself in what he had done, he seemed to conceive that all he had to do was to make statements, of which the narration is a specimen, to convince all others of his innocence. He had no idea, before the trial, of the plea which was to be set up for him. No testimony against him was so unrelenting as that of his adult daughters, who urged the prosecution with a vindictiveness as great as if the blood in their veins was drawn from the most opposite sources.

An attempt was made by the expert testimony, to show that the violent conduct of Hopp for the ten years before the homicide was purely the result of a delusion; that, dating from about the time of the arbitration, he was an insane man; that his insanity was evidently hereditary, though induced by the illness of which mention has been made; that his delusion having assumed the form it did, was merely accidental, and that it was no more strange in him to have accused an innocent woman of promiscuous intercourse with chance-comers to the house, than are the innumerable other forms which the mysterious disease of insanity perpetually puts on. The cool-blooded atrocity of the act of homicide, and the indifference and self-justification of its perpetrator were shown to be strictly in accordance with the nature of mental disease, as it existed in the prisoner; that, believing her continuance in guilt was more to be deplored than her death, he had become her executioner, and, by the perverted operation of his reasoning powers, he expected justification for the act he was committing.

It was urged that the habit of drinking was not the sole cause of the homicide, as contended for by the prosecution, but a mere incident, having, quite likely, little or nothing to do with the disease; that, had his conduct proceeded from indulgence in liquor alone, he would have shown quarrelsome and violent dispositions toward others as well as his unoffending wife; that the special terms which he invariably used toward her were significant of the singleness of the idea under which he existed; that, had the fatal blow been struck as the mere impulse of a drunken fit, the consequences of what he had done would have so shocked him as to have driven the fumes of liquor from his brain at once, and produced a paroxysm of remorse, while his whole demeanor, from that time till the inquest, was that of indifference and self-justification.

It was further shown that the change which took place in the mind of the prisoner when his wife was absent, was one

of the ordinary phenomena present in all cases of delusion, and in accordance with the law of mental disease; that where a delusion appends to another person, it disappears for the time being when the person is out of sight, and the fact of delusion is proved by the disappearance of the idea with the disappearance of the person to whom it relates. The clearly defined beginning of his altered conduct towards his wife, is also cited as one of the proofs that his conduct was the result of disease, and not of intemperate indulgence. It does not appear in any testimony, that his treatment of his wife was unkind, till the time of the arbitration before alluded to; and yet he was decidedly intemperate many years before that transaction.

Much stress was laid, in the prosecution, upon the oft-repeated declaration, "that he never abused his wife except when he was in liquor." This may all be true, and yet, if accepted as a bald statement, allows a fatal prejudice to enter into the case. It needs no wide experience to show how commonly the approach of a fit of paroxysmal insanity is signalled by an inordinate thirst for artificial stimulants, and how certainly the subject of that form of disease will avail himself of them if within his reach. William Hopp, with ample means, was always prepared thus to feed a natural excitement with an artificial one, and that he always did so, is merely proof that the coming on of the paroxysm was invariably attended with certain irresistible cravings. So far from it being a fact, that the homicide was merely the result of this indulgence, the theory is by no means untenable that the habit of drinking actually postponed the fatal tragedy, upon the well-known principle in mental philosophy, that the purposes of the will are dissipated and made ineffective under the diffusive tendencies of alcoholic stimulants. In all human probability in this instance, the fixed purpose of the lunatic was sometimes lost sight of in the windy brawl of the drunkard.

The charge of Judge Manierre is worthy of being quoted at considerable length. Viewed in the light of an attempt to make a difficult subject understood by a jury of plain men, it is certainly a success. Though there are many ideas in it at which exception would be taken, it has certainly the merit of great lucidity, and stands in striking contrast with the "muddle" uttered from the bench in the case of Real, quoted in the last Journal of Insanity. It may be remarked, that some of the former expositions of the law of insanity promulgated by

Judge Manierre, especially in the Green case, tried in Chicago some eight years ago, entitle his views to high consideration, and will be regarded, even by those who differ in some of them, with sincere respect. It should be explained that during the trial, the usual passage-at-arms took place between the counsel for the prosecution and a witness expert, on the subject of *moral insanity*—wholly foreign to the points of the case, and intended for mere effect. The somewhat lengthened discussion of this subject may have led the Court to the frequent allusions to it, which appear in the remarks from the bench:

REMARKS IN GENERAL.

"A crime," says Judge Manierre, "is defined as a violation of a public law, in the commission of which there shall be an union of act and intention. Intention is manifested by the circumstances surrounding the act, indicating its motive or object, and the sound mind and discretion of the accused. A person shall be considered of sound mind who is neither an idiot nor lunatic, nor affected with insanity, who has a knowledge and consciousness of the distinction between good and evil. In this case, the homicide is admitted, but the accused alleges that at the time of the commission of the act his mind was so affected with insanity that his moral sense and will were subjected by it, and he was oblivious to the moral quality of the act. The law presumes the sanity of every person charged with a criminal act, and that such act is the result of volition influenced by motives acting upon the mind. Hence the burden of overcoming this presumption rests upon the accused; but when insanity is satisfactorily shown, it is the duty of the jury to acquit, as in such case there is an absence of intention which is essential to a criminal act."

"Insanity is generally classified into moral and intellectual, and is either general or partial. Moral insanity consists in a disorder of the moral affections and propensities without any symptom of delusion or error impressed upon the understanding. Intellectual insanity is a disorder of the intellect, and is characterized by delusion or hallucination of mind, manifesting itself either in the belief of things naturally impossible, or of facts so improbable when considered in connection with the evidence upon which the belief is formed that no person in his senses could believe them. But these general definitions do not afford to the unprofessional mind a sufficiently clear and comprehensive idea of insanity thus classified and defined, to enable it to apprehend those distinctions of

science and law which are necessary to the formation of a judgment in this case. And it is due to the accused when such tremendous issues are involved as here, that those distinctions should be marked and defined with the utmost care and exactness by the court.

"The mind, in its more general sense, includes not only the powers of the understanding, as perception, reflection, imagination, memory, will and judgment, but also the moral sense or conscience, and the disposition, propensities, affections and passions. The passions, inclinations and propensities indicate the state or impulses of the mind, and constitute what are termed the moral powers as contra-distinguished from the intellectual. The action of the intellect can only manifest itself to the observation of others through the action or conduct of the individual. All actions proceed from the passions or from motives acting upon the mind and influencing the judgment and will. We judge of the character of a man by his conduct, and as that is regulated by just or evil impulses, we determine the moral constitution of his mind. When, therefore, we speak of the moral powers, we are understood to refer to the propensities, disposition or temper of the mind; whilst on the other hand, when we speak of the intellectual powers, we refer to the faculties of judgment, will and conscience.

"Thus constituted, man is regarded by law as a free moral agent, endowed with the power of volition or choice among different motives presented to the mind, and of determining whether his conduct shall be good or evil. It also assumes that every man has the power of determining whether an act is right or wrong, and it is upon the existence of this moral sense and freedom of will that all law, human and divine, bases its authority and its sanctions. If a man were obliged to do exactly what he does—if, in other words, he has no liberty of choice between good and evil, and his judgment and will must yield to any motive, impulse or passion acting upon it—then the whole system of criminal jurisprudence is founded upon an error, both fundamental and ineradicable. Free and moral agency implies the entire subordination of the passions and propensities, or moral powers, to the will, and the power of the will to control them, and assumes that all the outward acts and conduct are directed or suffered by the will, and hence that they are voluntary. On this principle, society, in all its relations, reposes. It is applied without regard to the moral training of the individual in youth, or to irritability of

disposition arising from disease, or from temper, or passions habitually indulged. However perverted the moral sense or strong and uncontrollable the passions, the individual is, nevertheless, presumed to be possessed of a sense of right and wrong, and the power to control the will and to act from choice, and this presumption cannot be rebutted by any evidence which falls short of proof of insanity.

OF INTELLECTUAL INSANITY.

"We may now perceive more clearly what is meant by insanity, both mental and moral. And first of intellectual insanity: The characteristic mark of this affection or disorder of the intellect, is delusion or hallucination, and is either general or partial. In general mania, the hallucination extends to all kinds of objects and subjects, and generally manifests itself in frenzy or raving madness. In monomania or partial insanity, the hallucination is confined to a single object or a small number of objects. This is the species with which we have here to do.

"Its true legal characteristic is delusive, or that state of the mind which is indicated by a belief in something in itself morally impossible. As that trees walk, statues nod; or in the belief of a state of facts in their nature morally possible but of the existence of which there is an entire absence of all reasonable grounds of belief. It also sometimes manifests itself in a belief of a direct revelation and of a controlling and irresistible sense of obligation to obey the revealed will.

"This state of the intellect indicates the existence of a disease which in its effects subjects the will, judgment and conscience to the imagination with respect to the subject of the insane belief. *The influence of such belief or delusion over the mind is much greater than the power of any conviction or belief in the mind of a sane person, and directs and controls the will, judgment and moral sense with inconceivably greater force.* The individual thus affected may be able, in most respects, to reason correctly on any subject beyond the range of his hallucination and be not unfitted for the intelligent care and oversight of his business. Nor is the power of judgment and reasoning disturbed in any perceptible degree, even with respect to the subject of the delusion, as his conduct and reasoning are as logical and rational with respect to it as if the facts constituting the delusion were real and not imaginary.

"The law, as well as medical science, recognizes all these

forms of mental insanity, and has certain established principles applicable to the subject. For obvious reasons a higher degree of insanity must be shown to absolve a party from the consequences of criminal acts than to discharge him from the obligation of his contracts. A man is not to be excused from responsibility if he has capacity and reason sufficient to distinguish between right and wrong as to the particular act he is then doing, a knowledge and consciousness that the act is wrong and criminal. But in these cases it is not deemed sufficient that the individual has a general knowledge that the act is wrong in its nature, because this general knowledge may well consist with delusion as to the moral quality of the act, when considered in reference to the person and the circumstances believed to exist, and which in themselves constitute the delusion of insanity. There may be insane delusion with respect to one's moral duty under such circumstances, as well as in the belief which is the primary evidence of unsoundness of mind. From whatever cause the power of the will or conscience may be subjected or perverted by an insane affection, self-agency ceases, and acts done under the influence thereof are neither criminal nor punishable, because they are not considered voluntary. For this reason the law will excuse homicide on the ground of partial insanity in the following cases:

"First—When the accused takes life under circumstances in which the act would be excusable if the facts constituting the delusion had an actual existence, and were not mere hallucinations, as in deference of life or habitation.

"Second—When the act is done under a delusive belief of a Divine command and overruling necessity, or under a controlling sense of moral duty, which deludes and misleads the understanding and conscience with respect to the moral quality of the act.

"Third.—Where the delusion consists in the belief that a wrong has been done to the accused in a manner which, if true as believed, would not excuse homicide, but he is at the time of the commission of the act so affected by the disease as to be incapacitated from knowing that he is doing wrong, and is unconscious of wrong. But where such knowledge and consciousness exist the accused cannot be acquitted on this ground, as the act will be treated as one of revenge."

Certainly, the above will be accepted as very fair elucidation of the principles of mental disease, as they apply to the general order of cases. The nature, and especially the force

of a delusion, (expressed in the passage italicized in the reprint,) will be regarded as very well conceived, though few will agree in a subsequent statement that "a higher degree of insanity must be shown to absolve a party from the consequences of criminal acts, than to discharge him from the obligation of his contracts."

The popular idea of "moral insanity" is well expressed in the following observations. All is certainly conceded which the most strenuous advocate of that distinction of a disease can desire. The industrious distribution of the "Huntington trial"—that scientific *morceau* being the sum total of the literature of insanity which many a Western law library can boast—has given those who oppose the plea of insanity indiscriminately, some excellent matter for ridicule. As before hinted, those who now sustain the plea of insanity as witnesses, have to meet the broad burlesque on the subject which this book virtually amounts to. A proposition was actually made in the Hopp trial to quote its medical opinions as the sanctioned views of "the doctors!"

OF MORAL INSANITY.

"As defined by those medical writers who treat this disease, it consists in the existence of some of the natural inclinations, dispositions or propensities, in such violence that it is impossible not to yield to them. It is attended with no delusion or disorder of the intellectual faculties in any notable degree, and the mind is conscious of right and wrong while under its influence. And yet, notwithstanding this consciousness, the mere violence of the inclination to commit the act is so great as to overthrow all the power of resistance which the mind may be able to oppose to it. Under its influence the individual ceases to be a moral agent. When manifesting itself in the homicidal form, the inclination and desire to kill, is often indiscriminate in its violence, sometimes directing itself against the life of persons indifferent to the sufferer, as well as against objects of affection and friendship, and it is impossible for him to restrain the uncontrollable fierceness of the impulse or desire. The act is never influenced by revenge or any of the passions or a desire to gain temporal advantages from the homicide. It is said to overcome the power of self-control, and to act without motive of any kind, and frequently without premeditation, and consists in the mere violence of the propensity or disposition by which the will is overcome.

"Most certainly, if this form of insanity has any existence,

the doctrine of free agency can have no application to one affected with it. It is at least of exceedingly rare occurrence, and its manifestations, as it has been observed, bear a striking resemblance to crimes. Nevertheless, it is recognized by the medical profession, though it has been rejected by the English courts of justice as apocryphal. Yet it has been adopted by some courts of very high authority in this country, and what is of more consequence to us, it is impliedly recognized by the Supreme Court of this State in the case of Fisher. It is true it was not adopted in that case upon solemn consideration. Yet it must be regarded as the law of this case. But in saying this it is my duty to add that it was regarded as so perilous in the administration of justice by the Court which first promulgated it as a principle of legal science, as to induce the observation that this mania is dangerous in its relations, and can be recognized only in the plainest cases. It ought to be shown to have been habitual, or at least to have evinced itself in more than a single instance, or from its circumstances to bear unmistakable marks of instinctive and uncontrollable impulse. "Where this affection is alleged," says Dr. Ray, whose authority is one of the chief supports of this opinion, "in excuse for crime, it must be proved, first, that it was really present; second, that it had arrived at that stage in which its impulses are irresistible; thirdly, that it should be the exclusive cause of the criminal act."

"Governed by these rules there can be but little difficulty in determining the presence or absence of this disorder when it exists, and is really the cause of the criminal act, as it may be said that there can be no reliable case of moral insanity where any strong motive, or passion, or other exciting or adequate motive is found in the evidence. Hence, where the criminal act can be traced to a desire of gain, or to hatred, revenge, jealousy or any strong passion, excited by drunkenness, the act must be ascribed to such motive or impulse, and not to that irresistible impulse which is said to constitute the distinguishing characteristic of the disease."

Truly unfortunate has it been for our professional specialty, that the term "moral insanity" has ever had mention. The phrase itself is a luckless invention, not only liable to an infinitude of misconception, but conveying ideas calculated wholly to mislead. It is as if there was some separate kind of insanity, located in some *terra incognita* which no man has yet discovered, wholly independent of the brain or any of its functions or operations. What is its seat or what are the or-

gans of its abode or production, are questions which those who employ the term are themselves puzzled to answer. It does not seem to be considered by those who give currency to the expression that its whole idea implies another centre of sensations, emotions, or passions, than their great legitimate one, the brain.

In the first place, it may seriously be questioned whether such a case as is usually described to set forth the idea, is ever actually seen. Experience brings before the mind a multitude of cases, not actually realizing the full idea, but which are close approximations to it. Now it is this close resemblance between cases which do exist and a certain ideal of disease borne in the imagination which leads us astray. The small difference which does exist between the case which every one has in hand and the ideal one, is always enough to destroy the value of the instance.

It has always seemed as if all that is included in the idea of moral insanity, might be better disposed of by a closer reference to phenomena of insanity which are of every day occurrence. Every one realizes how few of the delusions of the insane mind are ever revealed, and how readily they are revealed under one set of circumstances and concealed under others. All insane asylums abound in cases of unquestionable mental disease, where its palpable manifestations are so slight that the unskilled observer would doubt its existence. A certain suspicious reserve, a mysterious shyness of manner, some haughtiness of bearing, or some thing marked and singular in gait, or tone of voice, some strange attachment to a particular seat, or special stress applied to the doing of some trivial act, may be all that distinguishes the individual from other men. Yet one guided by experience has no hesitation in declaring such cases to be instances of latent delusion; and is prepared for the sudden exhibition of extreme or violent acts of which any of these almost unobserved antecedent peculiarities furnishes the explanatory key. In such cases, the extent of the disease is not at all measured by what appears on the surface.

The delusion which has possession of the mind may even have no outward form of manifestation whatever, that can be detected, and yet may give rise to all those singular, inexplicable, and perhaps violent acts, which a failure to explain by any anterior indications of delusion has styled moral insanity. It is very easy, especially with those much conversant with the insane, to conceive a case possessing all the attributes as-

signed to the form of disease here called in question ; but before admitting any such case as an existing fact, the possibility of a latent delusion underlying its characteristic perversities of conduct should be deeply considered.

It may be said, in reply to this view of the subject, that it assigns to delusion too indispensable a place in all cases of insanity, whereas it is well known that in many cases of even partial mania no such feature is believed to exist. This does not necessarily follow. Delusion among the insane may be supposed to bear about the same relative part in their unnatural acts that a well defined motive does in the acts of those who reason correctly. Persons possessed of reason perform the larger portion of their acts from no actually considered motive of which they are conscious. Acts are done from an impulse which is, after all, the result of some former reasoning process. So the phenomena of moral insanity, so called, may follow some former delusive process of thought of which the individual himself has no consciousness, and which, of course, no skill of another can detect. If this explanation is not in all cases satisfactory, it at least has the merit of enabling us to pass a stumbling block now almost invariably thrown in our way whenever we appear in court.

THE PEOPLE'S INSTRUCTIONS.

"In applying the principles of the law of insanity as thus defined, to the particular circumstances of this case, the Court instructs the jury on the part of the People, and in their behalf, that if they believe from the evidence:

"*First.*—That the mind of the accused was affected with insanity, only while in a state of drunkenness, and that with a knowledge of this predisposition and of right and wrong, the accused voluntarily put himself in that state and committed the act with which he is charged, the act in that case is criminal in the same degree as if there had been no predisposition to insanity when under the influence of drunkenness.

"*Second.*—That even though the jury should find that the accused was affected with insanity by reason of a delusion in regard to his wife's fidelity, yet if they further find that at the time he committed the act he had a perfect knowledge of right and wrong with respect to the act itself, and was under no delusion with respect to its moral quality, then the law regards him as a moral agent in the commission of the crime and subject to its penalty.

"*Third.*—That insanity produced immediately by intoxication

tion does not destroy responsibility, and if the jury find from the evidence that the accused, while sane and responsible, voluntarily intoxicated himself and in that state committed the act, they will find him guilty.

"*Fourth.*—That if the jury believe from the evidence that the accused, when free from the influence of intoxicating drinks, was uniformly sane and rational, and forbore all violence towards his wife, and that for a series of years prior to the commission of the act in question, he was accustomed, in fits of intoxication, to use violence upon her, and knew that such violence was the immediate result of such intoxication, and that having such knowledge he voluntarily made himself intoxicated on the day of the homicide charged in the indictment, and that such act was the immediate result of such intoxication, then the defendant is responsible for the crime, although he might have been laboring under some insane delusion at the time.

"*Fifth.*—That if the act was done by the accused under the influence of passions excited by drunkenness, or jealousy, or hatred, without provocation on the part of the deceased, or any danger to life or limb, that in that case the accused is not entitled to be excused from the consequences of the act on the ground of moral insanity, however strong or irresistible the passion may have been under which the act was perpetrated.

"*Sixth.*—That if the jury find that the accused was actuated by malice, jealousy, or other feeling of hatred, or from passions excited by drunkenness, at the time of the killing, then he is guilty of the crime of murder, though the jury may find that he was affected with insane delusion with respect to his wife's chastity."

Now, this will certainly be regarded, in view of some points in the evidence, as rather hard measure for the prisoner. The second and fourth parts of the instructions must bear upon the accused with little less than fatal effect. Granting the great material fact that the prisoner is an insane man, it hangs his only hope upon what a jury may conceive to be a "perfect knowledge of right and wrong with respect to the act itself." The effect of this position is to show that a mind may be radically diseased, and yet, upon the very point on which it is diseased, a nice and logical reasoning may, and indeed does, go on as to the quality of the act being done. It forces the prisoner to become a casuist while pressing forward to a violent act, under the irresistible control of an insane delusion.

If Hopp believed, on grounds insanely wrong, that his wife was wickedly unfaithful—bringing ruin and perdition on herself, and disgrace on her family—and regarded her death as necessary, and, as he informs the by-standers after the fatal blow had been struck, “meditated for ten years,” could he have had “a perfect knowledge of right and wrong with respect to the act itself,” as we understand the general ability of an insane mind to compass such knowledge?

The effect of setting aside the actual degree of the mental disease as a measurement of criminal responsibility, and substituting a fancied perverted use of the canons of good logic, as applied to some unnatural transaction, is seen at once. The fatal tendency of allowing a certain knowledge of right and wrong in regard to the acts of the accused to set aside any extent of insanity without that knowledge, is clearly shown in this case. When the delusion was lifted from his mind, by the absence of the object of it, as an inducement to procure her return, he actually acknowledges the wrong of his ill treatment, attributes it to liquor, and promises, under oath, to drink no more. Yet who does not see how unjust to the prisoner is this self-conception of his wrong when it is viewed by others in connection with his disease? In the “good time coming” we shall probably have done with all this, and deal more with the simple question of the actuality and degree of the insanity, and of the disjoining of the reasoning processes generally.

INSTRUCTIONS FOR THE DEFENSE.

“And the Court, on the part and behalf of the accused, further instructs the jury:

“*First.*—That if they believe from the evidence that the accused was at the time of the killing not drunk, but laboring under a fixed and insane delusion as to his wife’s infidelity and want of virtue, and that such delusion operated so powerfully upon his understanding and will as to render him incapable of perceiving or being sensible of the moral quality of the act, or knowing and acting upon the principle of right and wrong, in relation to the act, then such insanity entitles him to an acquittal on the ground that he was not a free moral agent.

“*Second.*—That if they believe from the evidence that the act of killing was the offspring and consequence of insanity in the accused, and not induced by drunkenness, hatred or malice, and that such insanity was the offspring of delusion

in regard to his wife's chastity, and so great as to overcome the will and obliterate all consciousness of right and wrong with respect to the act, or induce a fixed and insane belief that its commission was one of duty, then the jury should acquit, although they may believe that the accused was capable of reasoning correctly, and impressed with clear conceptions of right and wrong, with respect to the act of killing in general.

"*Third.*—That if they believe from the evidence that at the time of the commission of the act charged, the mind of the accused was laboring under an insane delusion caused by disease and not excited by drunkenness, with respect to the existence of facts, which if true would excuse homicide—as that a known felony was about to be committed—and that overcome and impelled by such delusion the accused took the life of the deceased to prevent in his insane belief the commission of the felony, then the act of killing must be considered the direct effect of disease and not of a mind capable of volition or choice.

"*Fourth.*—That if they believe from the evidence that the homicide committed by the prisoner was not the act of a man operated upon by motives and governed by the will, but the result of a mere uncontrollable impulse, communicated to his mind from insanity of the moral powers, and not by motives of hatred, jealousy or drunkenness or other passion impelling to the act, then the act was one of moral insanity. But in determining this question, the jury should have reference to the more exact definition of moral insanity given in previous instructions on this subject.

"*Fifth.*—That if they find from the evidence that at the time of the killing the mind of the accused was affected with insanity caused by disease, and that the act was the effect of such insanity and not of passions or insane delusions resulting direct from voluntary drunkenness, then the defendant stands excused on the ground of insanity. But in such case the jury must be satisfied that the insanity was of such a nature as to obscure the mind with respect to the moral quality of the act or induce the belief that it was necessary in self-defence; for though insane delusion may have existed, yet if it was not of such a character as will excuse homicide, the accused is not entitled to an acquittal on that ground.

"*Sixth.*—That if they find that at the time of the homicide the accused was affected with such insanity as would excuse from the consequences of acts otherwise criminal, then the

homicide is excusable on the ground of insanity, though the jury may believe from the evidence that such insanity was occasioned by past excesses of drunkenness. Where a person is insane he is not responsible criminally, although such insanity be remotely caused by indulgence in spirituous liquors. But it is otherwise if he is intoxicated at the time, and his insanity or delirium is the direct and immediate effect of such intoxication.

"Seventh.—That if the jury are convinced from the evidence that the killing was the immediate effect of an insane delusion concerning his wife's chastity, so affecting his mind as to control the will and obscure his perception of right and wrong with respect to the act, and that such state of mind was not the effect of passions excited by ardent spirits, then the act is excusable on the ground of insanity, though he may have been drinking. But the conviction of the mind on this point should be clear, and care should be taken not to confound passions excited by liquor with those which are the natural effects of insanity. For if insanity existed, but would not have manifested itself in homicide if it had not been stimulated by excitements caused by liquor, then the act is not excusable on the ground of insanity. But if the jury can reconcile the evidence tending to prove drunkenness, with a conviction drawn from the evidence that the act was one of insanity and not the effect of drunkenness, it is their duty to refer the act to insanity and acquit the prisoner on that ground.

"Eighth.—That if the jury shall find that the accused, before the commission of the act, was affected with insanity of a nature to obscure and overcome his moral perceptions with respect to the act committed, then the burden of proof is upon the prosecution to show that he was not affected with such insanity at the time of the killing."

An examination of the above will show how little the accused has to hope from any instructions which will not recognize the disease and the vicious habit as two incidents, to be separately considered. The first section, for instance, can be of no effect, because the defense does not deny the fact of the drinking on the day of the homicide, probably to the extent even of intoxication. The insanity and the drunkenness are put too much in the light of incompatible states to enable the idea of the former much to aid the accused. The fatal idea that the prisoner was *either* insane or drunk, was that which a jurymen, not much in the habit of thinking, would most

likely entertain; and the instructions of the Court fail to give the prisoner all the advantage which his defense claimed for him in not recognizing drunkenness as possible to be super-added to insanity, and allowing the onus of the crime to fall upon the permanent state, and not upon the accidental one. The references to the condition of drunkenness through the following sections of the chapter, except the last, sustain the same connection of the two ideas, and allow the mind the easy duty of merely holding the two states as incompatible—connecting the one always with the idea of guilt, and the other only with the possible one of innocence. If the idea of the eighth section had been the leading one through all the instructions to the jury, it is evident that a new complexion would have been given to the case.

It is an unfortunate omission in these instructions that the minds of the jury were not as much carried back to the idea of premeditation as the evidence warranted, but allowed to contemplate the act as one of impulse merely. In what does the actual guilt of the crime of murder consist? Not alone, or principally even, in striking the blow that deprives of life, but in that premeditation which resolves on, and shapes the manner, of the deed. The law recognizes this by holding him guilty who aids or countenances this premeditation of a crime. Now, taking the prisoner's solemn declaration, an hour after this homicide, it had been the intention of years. That deliberate purpose could not have been the effect of drunkenness; and if not, what was it but insanity?

CONCLUDING INSTRUCTIONS.

"In conclusion the Court instructs the jury, that it is their duty to give a careful consideration to all the facts and opinions in proof, throwing light upon the insanity of the prisoner at the time in question. On this subject, medical opinions and evidences are entitled to attentive and respectful consideration. And if the act is proved to the satisfaction of the jury, by the weight and preponderance of the evidence, to have been one of insanity only, the prisoner is entitled to an acquittal, *though that defense should not be proven beyond all reasonable doubt.*"

Whatever of criticism may have been bestowed on any of these preceding observations, the italicized portion of the above is a concession to the plea of insanity that will certainly procure for Judge Manierre the regard of those entrusted with the interests of the insane. It is the first time, to our knowl-

edge, that insanity has been allowed the same privilege as actual crime, in having the "benefit of a doubt." Hitherto, while all doubt in ordinary criminal prosecutions enured to the prisoner's benefit, doubts in regard to sanity did those who denied it in plea no good whatever. The proof of insanity must be positive, or else was set aside as of no sort of weight. Slight though this enunciation may be, it should be treasured as the dawn of new and better things in this department of jurisprudence.

The prisoner was convicted of murder, though it is believed that another trial may be had.—*American Journal of Insanity.*

EDITORIAL AND MISCELLANEOUS.

Insanity and Intemperance.—We do not need to apologize for introducing to our pages the interesting paper of Dr. McFarland on this important subject. It was found impossible to make a satisfactory abstract of it and do the author justice. We had partially prepared a paper based upon our own knowledge of the Hopps case, as intimated in the January number of the JOURNAL. But the large experience of Dr. McFarland, combined with the advantages which his position, as Superintendent of the Illinois State Asylum for the Insane at Jacksonville, gives him, must render his views vastly more impressive and worthy of weight that anything we might advance.

At the first trial William Hopps was convicted because intemperance was proved. The facts of his insanity could not be disproved and the attempt was scarcely made. It has thus been gravely decided that intemperance is proof positive of sanity! Are intemperance and insanity incompatible? Both jury and court manifested the belief that they are.

Notwithstanding the complimentary mention of the presid-

ing Judge in this case by Dr. McFarland, we cannot overlook his seemingly studied insult to the intelligence of the medical experts present in intimating that they were not capable of distinguishing, or neglected to distinguish, the manifestations of insanity present from those of drunkenness. In his remarks overruling the motion for a new trial, he deprecatingly insinuates that the medical experts were probably not aware of the prisoner's intemperate habits! When every one of them knew that this was the very point in issue, and consequently paid especial attention to that identical investigation!

Did space permit we could point out other important evidence of (designed?) misrepresentation of the positions assumed and statements made by the medical experts examined. One medical man, for instance, who was called for the defence against the remonstrance of some of the council and all of the experts, on the ground that he was incompetent to give an opinion in the case, blunderingly attributed the remarkably quick pulse of the prisoner to "an enlargement of the heart"! whilst every other physician expressly denied such a condition. When we mention that Drs. McFarland, Parker, Wing, N. S. Davis, Rea and others, certainly competent to judge, decided that there was no such disease, it is certainly surprising that the Court, fully cognizant as he was personally of the position of affairs, should have dignified this single blunder into a difference of opinion on the part of the experts,—and this with a life at stake. *Ab uno disce omnes.*

But William Hopps will have another trial. An insane man is not to be hanged in this age of the world, either to gratify the revenge or avarice of his family, or to put additional plumes upon a jackdaw prosecuting attorney, with saloon-political influences.

Morbid Anatomy.—That capital observer, practitioner and lecturer, Dr. THOMAS K. CHAMBERS, appositely remarks: "It is very rarely that which can be put up in a bottle, made an interesting preparation or picture of, that the patient feels,

and that it is the business of your life to help him feel less. The true use of morbid anatomy is to teach physiology, not the art of medicine."

The study of morbid anatomy has contributed but a mere trifle to practical medicine, save through the light it has thrown upon physiology. Yet how many *post mortems* are performed, and sage inferences drawn from them, by those who know nothing of physiology!

The same idea is applicable to the study of chemistry, and even *Materia Medica*. Medicine will not progress, as the science now warrants, until physicians become thoroughly acquainted with physiology. It is the great want—worth infinitely more to the individual practitioner than a score of National Associations, or any whole chapter of legislative enactments for the protection of "the dignity of the profession."

A practice in these days which is not corrected by, if not indeed in large part based upon the scientific teachings of physiology, rises but little above, save in name, the baldest empiricism.

The erroneous practice often built up on the basis of mere morbid anatomy, has historically proved so destructive, that it becomes almost a question whether the world would not thus far have been better off if a *post mortem* had never been performed. Yet, with reference to its bearing on physiology, the *post mortem* can scarcely be over-rated in importance. The light shed upon medical practice has ultimated in the remediless ruin of the pitiless bloodletting, starvation, and tissue-destroying schools. And yet within the last few weeks we received the details of a case where an antediluvian practitioner in this city, as ignorant of the science as his horse of astronomy, when called upon, as he arrogantly stated, "*not to consult but to instruct*," kept the patient, a delicate lady who had just passed through a severe labor and was wholly anæmic and exhausted, upon *Rice Water and alterative doses of Calomel*, until death by inanition was the necessary result.

We denounce such a practice as without the pale of the profession, as brutal—not merely wanting accordance with the present high state of advance of the profession, but as meriting the penitentiary, and essentially damnable.

Nevertheless this ignorant beast is permitted to call himself a “regular physician,” and is even admitted the privileges of consultation with some otherwise respectable men. And educated medical men are held responsible for the murderous antics of this bragging dotard—ten times a quack though a thousand antique diplomas were piled upon him!

Absorption.—Long since we read a book by Millingen termed “Curiosities of Medical Experience.” It is our favored lot to add another to the catalogue.

Not a thousand miles from the “North Side,” and not long since, in fact within the last month, a lady was confined—a not unusual circumstance. The Dr. was not long detained. A child was born, a placenta and belongings safely removed, a bandage placed around the abdomen *secundem artem*, and Medicus went on his way rejoicing. Not long after, he was sent for, as pains were still troublesome. An opiate was prescribed with orders to repeat p. r. n. But before long he was again sent for, and ordered, in addition to the anodyne, a poultice over the abdomen.

The visits were several times repeated, and anodynes and poultices long persevered with, but in vain. Visions of Puerperal fever, with all its horrors, cast a shadow of gloom over the household. After much long-suffering (forty-eight hours) the patient and friends became impatient, dismissed the attendant and sent for Dr. —, who, in despite of his old bachelorhood, enjoys large repute in this and a similarly delicate class of cases. Palpation, notwithstanding the thick poultice, discovered through the abdominal walls the outline of an enlarged uterus, and *another child*. The Dr.’s expletive on the occasion is said to have been worthy of Abernethy in his best days, and the expression of his pleasant countenance worthy

the brush of Hogarth. Suffice it to say, the child was speedily brought to the light, although, alas for the delay, not to life. Meanwhile the inquiry running around the fraternity is: Was the poultice put on to remove the uterine contents by favoring suppuration, or absorption?

Cholesterine.—J. H. SALISBURY, M. D., in a series of experiments in the *Am. Jour. Med. Sci.*, April 1, 1863, found cholesterine and seroline in health as secretions, of the Salivary, Tear, Mammary and Sudorific glands; of the Testis and Ovary; of the Kidneys in Hepatic derangements; of Mucous Membranes when congested and inflamed; and in the fluid of Ascites and that of Spina Bifida. He states that the sudorific glands secrete them largely during the sweating stage of intermittent, remittent, varicella, diphtheritic conditions, typhoid fever, and *diabetes mellitus*. Seroline is also secreted in remittent. Butter, beef and hog suet contain both. Human milk previous to birth is rich in cholesterine, but no seroline was detected. After birth and during nursing the milk contains both largely. The milk of the cow is rich in both. As cholesterine has also been found in vegetables, it would seem to be a very common constituent of organic substances. It may be a peculiar product of nervous action and change, but evidently has other sources. It is a pretty subject to theorize about.

Enchondroma.—The Hahneman College of this city has, during the last winter, been edified by several clinical lectures upon what was called a case of spinal cord disease. The sugar plum gentry sat in council over it, and great was their jubilation that the unfortunate lad did not die whilst under the magic influence of doubly-dilute attenuations and triply divided infinitesimals. The potencies were used with an unsparing hand—but as the months went by without improvement, the father of the lad became impatient and ultimately called upon an intelligent physician. There is complete par-

alysis of one arm and nearly complete paralysis of the other. There is general wasting of the muscles of the shoulders and arms, to a strongly marked extent. With these exceptions the patient, a boy of some five or six years of age, is evidently in robust health.

Examination shows the presence of an enchondromatous or bony tumor, involving the arches of the first dorsal and last cervical vertebræ, perhaps one upon each side, or connected by outgrowth anterior to the bodies of the vertebræ. The tumor is much more prominent and larger upon the side completely paralyzed than upon the other.

The paralysis is seen to depend wholly upon the mechanical pressure of the tumor upon the brachial plexuses. The tumor was wholly undiscovered and neglected by the *ass-tute* spiritualistic practitioners.

The particular attendant in this case was recently heralded in the daily press as the author of a profound published essay on *Diphtheria*. It is suggested that he add an appendix on Paralysis.

Glycerine Locally in Fevers.—JNO. E. ENNIS, M. D., of Lyons, Iowa, communicates to us his satisfactory experience in "the application of Glycerine to the lips, tongue and fauces in cases of continued fever, where the patients complain so much of these parts being dry and parched."

"It does not evaporate like water; is quite pleasant to the taste, and by applying three times a day perfect relief is obtained. It seems to dissolve the dry coating on the lips and tongue, and in one or two days they assume almost their natural condition. I have used it in the army during the last two years in numerous cases, and can speak positively of its beneficial effect."

Health: Its Friends and its Foes.—By R. D. MUSSEY, M. D., LL.D., late Prof. Anat. and Surgery at Dartmouth College, N. H., and of Surgery in the Medical College of Ohio

Fellow of the Am. Acad. of Arts and Sciences, &c., &c.
Boston, Gould & Lincoln, 1862.

This little work contains the well known peculiar views of its venerable author upon hygienic subjects. By no means coinciding with his opinions upon certain mooted points, the long experience and profound sincerity of the author, together with his really valuable elucidation of many important topics will warrant us in commending the book to the perusal of our readers. Students and practitioners have no more imperious duty than that of acquainting themselves with all the facts bearing on the subject of hygiene. Sanitary Reform is the greatest object of thought for the present age.

Lotion for the Hair.—A. R. TERRY, M. D., of Detroit, after properly reprehending the use of the numerous oils and greases for the hair states: "An excellent cleansing lotion for the hair, when it is unhealthy and inclined to fall, is the following: ℞. Tinct. Cantharid. ℥ij; Aq. Ammon. ℥iv; Alcohol, ℥ij; Aq. Pur. ℥vii; M. S. a tablespoonful of this may be added to half a pint of cold water, and the head thoroughly washed with it, either twice or thrice a week, or every day, according to the urgency of the case. The falling out of the hair will be generally checked in a week or two, and a new crop begin to appear; but the remedy should be continued for some weeks after. The mixture may be perfumed by the substitution of Cologne or Lavendar Water for the Alcohol, or by the addition of some aromatic essential oil in small quantities.

Bunions.—The same gentleman remarks that Bunions are often the result of Rheumatism or Gout. More frequently they result from the absurd custom of making boots and shoes much narrower across the toes than across the ball of the foot, an almost incurable vice of the shoemakers.

When the inflammation is of a slow or chronic character an ointment of Veratris will be found useful: ℞. Veratris, gr.

vijj; Adipis ʒj; M. S. Rub this on the joint night and morning. In some cases the application of a blister, or of solid Lunar Caustic, sufficient to produce a blister, and followed by a poultice, has been found effectual in checking the inflammation.

Dilute Nitric Acid, or a strong solution of Hydrochlorate of Ammonia will often relieve mild cases. Tinct. Iodine has acquired reputé for the same object. But a properly shaped boot or shoe, especially for the growing foot, is the great remedy and preventive agent.

Glycerole of Tar.—A combination of Glycerin and Tar is recommended in skin affections instead of the tar ointment of the pharmacopœia. ʒ Glycerin, ʒ vj; Tar, ʒ vj; Powdered Starch, 3 ij. Warm the glycerin, stir in the starch, add the tar, and raise the mixture rapidly to the boiling point. Strain through a cloth, if necessary, and stir while cooling. The addition of the starch is found necessary to secure a uniform mass. It should be dark brown, perfectly smooth, and somewhat softer than the ointment.

Graduates of the Medical Colleges.—Bellevue College Hospital, 42; New York Medical College, 11; N. Y. Ophthalmic School and Hospital, 16; Med. Dep. Univ. Buffalo, 24; Med. Dep. Univ. Pennsylvania, 78; Jefferson Medical College, 82; Med. Dep. Univ. Michigan, 39; Cincinnati Coll. Med. and Surg., 25; Medical College of Ohio, 27; Starling (Columbus O.) College, 36; Long Island College Hospital, 11; Rush Medical College, 58.

Iodurated Frictions in Pleurisy and Endocarditis.—Prof. Delioix (*Gaz. Médicale de Paris*) strongly urges frictions of Iodine to promote removal of the plastic exudations of pleurisy, &c. He prefers to the Tinct. of Iodine a pomade which in general he finds most useful: ʒ Iodine 3 ss; Iodide of Potassium 3 ij; Axunge ʒj. Mix. This combination is very

active, indeed, requiring, where the skin is delicate, to be used with care, but it leads to the introduction of appreciable quantities of iodine into the system more certainly than any other mode. The skin should first be thoroughly cleansed, and the ointment rubbed in strongly for at least five minutes over a space somewhat larger than that affected. Repeated, say morning and evening. In the meantime the part should be covered with a layer of cotton wadding, over this oiled silk, and the whole secured in position by a bandage.

In twenty cases Prof. D. found this to triumph completely over the exudations. Treatment lasted from fifteen days to two months, in the last case there having been inflammation over both pleuræ.

He did not find it as useful in pericarditis, but in endocarditis the blowing sound rapidly disappeared on its use. Probably similar advantage might be gained in peritonitis, &c.

CAZEAX' MIDWIFERY—*New Edition*.—We have been advised that this work was forwarded to our address through Wm. B. Keen & Co., booksellers, of this city. We can trace it in its transit just so far as we were enabled to trace PROF. GROSS' SURGERY, a year or two since, and then it mysteriously disappears, as did those lamented volumes. We had not even the melancholy satisfaction of losing them by loaning, as we have succeeded in distributing professional intelligence from our private library. *Non est inventus*—and we have a shrewd suspicion who (if he happens to read it,) will be better posted in obstetrics by its possession.

We assure him it is a standard authority upon the subject of which it treats, and is richly worthy his perusal. Our loss will be his gain in this world, perhaps, but we earnestly fear not "in that which is to come."

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